release of each of the COX-II inhibitor and the muscle relaxant; 5) the pharmaceutical composition provides therapeutically effective plasma levels of the COX-II inhibitor and muscle relaxant for a period of at least 12 hours after administration; and/or 6) the COX-II inhibitor is selected from the group consisting of rofecoxib (VIOXX™, MK-0966), celecoxib (CELEBREX™, SC-58635), flosulide (CGP-28238), NS-398 (N-(2-cyclohexyloxy-4-nitrophenyl) methanesulfonamide), DUP-697 (5-bromo-2-(4-fluorophenyl)-3-(4-methylsulfonyl) thiophene), meloxicam, 6-methoxy-2-naphthylacetic acid (6-MNA), nabumetone (prodrug for 6-MNA), etodolac, nimesulide, SC-57666 (SC-58125; 1-fluoro-4-(2-(4-(methylsulfonyl)-phenyl)-1-cyclopenten-1-yl)-benzene), T-614 ([N-(3-formylamino-4-oxo-6-phenoxy-4H-chromen-7-yl)methanesulfonamide) and combinations thereof.

Another aspect of the invention provides a controlled release combination device comprising:

a core comprising a therapeutically effective amount of a COX-II inhibitor and at least one osmotic agent or osmopolymer, wherein the core provides a controlled release of the COX-II inhibitor;

a semipermeable membrane surrounding the core and having a passageway there through; and

an external coat comprising a therapeutically effective amount of a muscle relaxant, wherein the external coat provides a rapid release of the muscle relaxant; and wherein:

at least 75% of the COX-II inhibitor is released within 24 hours, and at least 75 % of the muscle relaxant is released within 40 minutes after exposure of the osmotic device to an aqueous solution.

In other embodiments, the external coat is applied by spray coating rather than by compression coating. By spray coating rather than compression coating the external coat is thinner, and therefore a smaller osmotic device is formed.

Other embodiments include those wherein: 1) the controlled release device further comprises an inert and erodible water soluble lamina interposed the semipermeable membrane and the drug-containing outer coating; 2) the water soluble lamina comprises poly(vinylpyrrolidone)-(vinyl acetate) copolymer; and/or 3) the controlled release device is an osmotic device.

targeted, enteric or timed-release dosage forms. Suitable dosage forms for this embodiment include, for example, a layered patch, layered or coated tablet, layered or coated osmotic device, capsule containing a mixture of beads that provide different release profiles for the drugs, and layered or coated implant.

Each drug will be released independently according to a rapid, immediate, controlled, sustained, slow, timed, targeted, pseudo-first order, first order, pseudo-zero order, zero-order, second order and/or delayed release profile. The particular release profiles for the COX-II inhibitor and muscle relaxant in a particular dosage form will depend upon the specific COX-II inhibitor and muscle relaxant present. For example, a dosage form might provide: 1) a controlled release of the first drug and a controlled release of the second drug; 2) a controlled release of the second drug and a rapid release of the first drug; 3) a controlled release of the first drug and a rapid release of the second drug; 4) a rapid release of the first drug and the second drug; 5) a rapid release of the first drug and a delayed but rapid release of the second drug; 6) a rapid release of the first drug and a timed but controlled release of the second drug; 7) a rapid release of the second drug and a delayed but rapid release of the first drug, and 8) a rapid release of the second drug and timed but controlled release of the first drug.

COX-II inhibitors useful in the present invention include those compounds that are selective for COX-II receptor inhibition over COX-I receptor inhibition or that are COX-II specific receptor inhibitors. These compounds include, for example, rofecoxib (VIOXX™, MK-0966), celecoxib (CELEBREX™, SC-58635), meloxicam, nimesulide, etodolac, flosulide (CGP-28238), NS-398 (N-(2-cyclohexyloxy-4-nitrophenyl) methanesulfonamide), DUP-697 (5-bromo-2-(4-fluorophenyl)-3-(4-methylsulfonyl) thiophene), meloxicam, 6-methoxy-2-naphthylacetic acid (6-MNA), nabumetone (prodrug for 6-MNA), nimesulide, SC-57666 (SC-58125; 1-fluoro-4-(2-(4-(methylsulfonyl)-phenyl)-1-cyclopenten-1-yl)-benzene), and T-614 (N-(3-formylamino-4-oxo-6-phenoxy-4H-chromen-7-yl)methanesulfonamide). Other suitable COX-II inhibitors are disclosed in PCT International Publications No. WO 99/25382, No. WO 94/15932, No. WO 96/03388, No. WO 95/00501, No. WO 95/18799, No. WO 98/50075, No. WO 99/13799 and No. WO 96/08482, the entire disclosures of which are hereby incorporated by reference. Still other suitable COX-II inhibitors are disclosed in Patents No. FR 2747123 or FR 2747124, the entire disclosures of which are hereby incorporated by reference. Additional suitable COX-II inhibitors are disclosed in US Patents No. 5,393,790, No. 5,409,944,